

Bonner zoologische Beiträge	Band 51 (2002)	Heft 2/3	Seiten 175-188	Bonn, September 2003
-----------------------------	----------------	----------	----------------	----------------------

Darwin, Rüppell, Landbeck & Co. - Important Historical Collections at The Natural History Museum, Tring

Frank D. STEINHEIMER

The Natural History Museum, Bird Group, Tring, UK

Abstract. The nationality of a particular collector is irrelevant to the location of his/her specimens today. Selected examples from The Natural History Museum (BMNH) will illustrate this fact.

Many people expect that all (avian) specimens of British scientific explorers like James COOK (1728-1779), Charles DARWIN (1809-1882) and Alfred Russel WALLACE (1823-1913) have ended up in the national collection. However, neither COOK's nor DARWIN's entire collection is possessed by the BMNH. Furthermore, WALLACE's bird specimens, of which large portions had been obtained by the BMNH, were used for exchanges decades later. Therefore, many of the bird skins from famous British travellers are found in museums world-wide, illustrated here by selected examples of the current whereabouts of COOK's and DARWIN's avian material.

Conversely, The Natural History Museum holds among others, ornithological material from German and Austrian collectors. Duplicates, including syntypes, of Eduard RÜPPELL's (1794-1884) Abyssinia-expedition and nearly a hundred skins of Ernst HARTERT's (1859-1933) collecting activities in East Prussia are found at BMNH, as well as the majority of Christian Ludwig LANDBECK's (1807-1890) Chilean bird eggs & skins. Moreover, a volume of LANDBECK's illustrations for a planned book on the „Birds of Germany, Alsace and Switzerland“ has been an unique item of The Natural History Museum's library since 1936.

Altogether, The Natural History Museum has gathered material from more than 100 German/Austrian ornithologists, numbering several thousands of skins and eggs.

Key words. COOK, DARWIN, WALLACE, HARTERT, LANDBECK, RÜPPELL, BMNH

1. INTRODUCTION

Enquiries and publication on certain collectors have increased over the last few decades. This is partly due to recognition of the importance of early collections for taxonomy and distribution, but also due to the intrinsic interest of historical facts of ornithology and early explorations. Certain figures in British scientific history command a huge public attention, among them James COOK, Charles DARWIN and Alfred RUSSEL Wallace. Surprisingly, the whereabouts of their avian collections is not completely known. Parts are found at The Natural History Museum, hereafter referred to as the BMNH, but many specimens were also distributed to other institutions. Conversely, some of the avian specimens from famous German and Austrian collectors have ended up at the BMNH. This situation is linked to the former Linnéan thinking, that two or three of each taxon would be enough to understand the avian world. The remaining specimens were happily exchanged, donated or sold as duplicates to other institutions world-wide. A real understanding of the importance of types, of long series of specimens from the same subspecies & locality and of early collections as indicators for changes in distribution pattern did not arise much before the end of the 19th century. On the other hand, many of the very early collections might have not survived had they stayed at the institution of

their first display, because distributing duplicates prevented total loss of important material through disasters or neglect of certain curators. I would like to give some examples of the consequences this procedure had for selected collections.

2. FAMOUS EARLY BRITISH COLLECTIONS AT THE NATURAL HISTORY MUSEUM AND THEIR DUPLICATES ELSEWHERE

2.1. James COOK and William BULLOCK

Some of the first expeditions with naturalists on board were those of James COOK (1728-1779). Once returned, the collected bird specimens went to the private museums of Ashton LEVER (1729-1788) and Joseph BANKS (1743-1820), and subsequently to James PARKINSON (1755-1824) and William BULLOCK (~1773-1849; ALEXANDER 1985). The history of these collections is well known until the sale of the Museum Leverianum in 1806 and of BULLOCK's collection in 1819 (LEVER 1790; BULLOCK 1809, 1811, 1812, 1813; SHARPE 1906; MULLENS 1917-1918; STRESEMANN 1951; CHALMERS-HUNT 1976; ALEXANDER 1985; JACKSON 1998; MEARN & MEARN 1998), but the whereabouts and the amount of still extant COOK specimens are surprising.

The institutions which still hold a share of COOK's and, respectively, BULLOCK's avian collections (bird remains in human artefacts are not taken in account, cf. e.g. SVET & FEDOROV 1978) are as follows (compiled from PELZELN 1873; SHARPE 1906; SALVADORI 1914; STRESEMANN 1949, 1950; WHITEHEAD 1969, 1971, 1978; SWEET 1970 and ROSELAAR 2003 and STEINHEIMER in prep.): Naturalis Nationaal Natuurhistorisch Museum (Leiden), Zoölogisch Museum (Amsterdam), Naturhistorisches Museum (Vienna), National Museum of Scotland (Edinburgh), National Museums & Galleries on Merseyside (Liverpool), University Museum of Zoology (Cambridge), Muséum National d'Histoire Naturelle (Paris), Universitet Zoologiske Museum (Stockholm), Hancock Museum (Newcastle upon Tyne; the two specimens were not found in the 1960s, cf. WHITEHEAD 1969), Zoologisches Museum der Universität (Göttingen), Niedersächsisches Landesmuseum (Hannover), Museo Regionale di Scienze Naturali (Turin), Museum für Naturkunde der Humboldt-Universität (Berlin) and The Natural History Museum (BMNH Tring). The Ottoneum Naturkundemuseum der Stadt (Kassel), University of Glasgow Hunterian Museum & Art Gallery (Glasgow), Hancock Museum (Newcastle upon Tyne) and the Royal College of Surgeons of England (London) once possessed COOK/BULLOCK birds, but could not produce them anymore on my request (P. MANSFELD, M. REILLY, L. JESSOP & B. DAVIS in litt. 2001-2003). In the following paragraph I only list those collections for which I can add some new information.

2.1.1 Göttingen: Institut für Ethnologie, Völkerkundliche Sammlung der Universität

One specimen of *Molothrus nobilis* and one *Vestiaria coccinea*, which were acquired for the museum by the London dealer George HUMPHREY on behalf of King GEORGE III of Britain & Elector of Hanover (1738-1820) in 1782, derive from COOK's last voyage (cf. MERREM 1784; STRESEMANN 1950; HAUSER-SCHÄUBLIN & KRÜGER 1998). The former specimen probably went within the Heinrich KIRCHHOFF (1789-1871) collection to the Niedersächsisches Landesmuseum (Hanover), where it is still found today (Chr. SCHILLING pers. com. February 2003). The latter specimen has remained in the Institut für Ethnologie on public display since then (MEDWAY 1979; HAUSER-SCHÄUBLIN & KRÜGER 1998). There are still two specimens of the assumed *Pennula sandwichensis* at Göttingen, whose provenance is unknown but would have been likely to have derived from COOK's voyages. However, the identification proved to be wrong, and they are now considered to be the species *Poliolimnas cinerea*, a common species throughout its wide range (STORRS OLSON in litt. 25 October 2001, cf. DEKKER 1999; cf. FULLER 2001). Therefore these specimens

cannot certainly be linked with COOK, and it seems unlikely that Göttingen Museum still has any avian COOK material. There was a rumour that the specimens might have been given away within the KIRCHHOFF collection to the museum at Hannover, but enquiries there revealed no further evidence of the existence of these specimens (in litt. Christiane SCHILLING & Michael SCHMITZ, 1 November 2001). Last but not least, COOK material was used shortly after the Second World War for teaching purposes at the university of Frankfurt a.M. (pers. com. Karl-Ludwig SCHUCHMANN, 10 November 2001), which has not been followed up yet.

2.1.2 Kassel: Ottoneum Naturkundemuseum der Stadt

A sailor on COOK's last voyage, Barthel LOHMANN, brought four specimens of *Vestiaria coccinea* with him to Kassel, where at least one ended up in the museum's collection (STRESEMANN 1950: 70). However, this has not been seen since the Second World War, when the museum was heavily damaged (pers. com. Peter MANSFELD, 22 October 2001).

2.1.3 Turin: Museo Regionale di Scienze Naturali

The museum at Turin got its share of the BULLOCK collection via Franco Andrea BONELLI (1784-1830), who was at the auction of BULLOCK's museum in London (SALVADORI 1914; ELTER 1986). Concerning the catalogue data of Turin museum (by courtesy of Claudio PULCHER in 2001), the museum holds at least 5 original specimens from James COOK, two being the Common Akepa *Loxops coccineus* from Hawaii and three being woodpeckers from North America (WHITEHEAD 1978). The holotype of *Fregetta tropica melanoleuca* SALVADORI, 1908 from Capt. Dugald CARMICHAEL's (1772-1827) collecting on Tristan da Cunha (see Berlin Museum, SALVADORI 1908) is another of the early important birds from BULLOCK's museum. Most other remaining specimens of the BULLOCK collection at Turin are from Africa and South America.

2.1.4 Berlin: Museum für Naturkunde der Humboldt-Universität zu Berlin

During several months of intensive studies, it was possible to locate many specimens and archive material relating to the BULLOCK collection. The documentation of this collection is good and several letters from BULLOCK to Martin Hinrich Carl LICHTENSTEIN (1780-1857) are preserved in Department of Historical Research (Museum für Naturkunde der Humboldt-Universität zu Berlin, Historische Bild- u. Schriftgutsammlungen, Bestand: Zool. Mus., Signatur: S I, BULLOCK, W.; see fig. 1). BULLOCK originally offered to sell the entire collection to LICHTENSTEIN (the same

offer exists for the BMNH, cf. WHITEHEAD 1969). However, within days another letter announced the sale by public auction. Nevertheless, LICHTENSTEIN rescued 263 specimens for the Berlin Museum and compiled a full list of the specimens that were acquired (in Department of Historical Research). A total of 138 entries for the BULLOCK collection were found in the Cat. Musei Zool. Berol. Aves I and II. Furthermore, 20 of these specimens have localities which were also visited by James COOK, the others being mainly from Senegal and North America. Among the most interesting specimens which could be located in the Berlin collection are three birds presumably collected by COOK, a *Prothemadera novaezealandiae* from New Zealand (listed in BULLOCK's Sale catalogue under 11th day, lot 8: *Merops Novae Zealandiae*), a *Halcyon sancta* from New South Wales (listed in the Sale catalogue under 3rd day, lot 12: as *Alcedo sacra*) and, last but not least, a *Psittirostra psittacea* from Hawaii (listed in the Sale catalogue under 20th day, lot 65: as Parrot-billed Grosbeak). Further important specimens from BULLOCK's museum are the two (contra one in STRESEMANN 1953) birds collected by Capt. Dugald CARMICHAEL on Tristan da Cunha in 1816-17 (cf. BOURNE 2001): the holotype of *Nesospiza acunhae* and a *Eudyptes chrysocome* (cf. Crested Penguin in CARMICHAEL 1819: 497). A full documentation of Berlin's BULLOCK holdings is in preparation.



Fig. 1: William Bullock's correspondence at the Department of Historical Research of the Museum für Naturkunde der Humboldt-Universität zu Berlin (Historische Bild- u. Schriftgutsammlungen, Bestand: Zool. Mus., Signatur: S I, BULLOCK, W.).

Foto: F. STEINHEIMER

© Museum für Naturkunde der Humboldt-Universität zu Berlin

2.1.5 Tring: The Natural History Museum (BMNH)

The BMNH still possesses at least 11 likely specimens from COOK's & BULLOCK's collections. One is the famous last Great Auk *Pinguinus impennis* from British shores (cf. FULLER 1999 for more details), which was obtained at the BULLOCK museum's sale, though it is not from COOK. The following eight specimens are certainly from one or the other voyage of James COOK, three may be of this origin.

Two of them, *Vestiaria coccinea* from Hawaii and *Creadion carunculatus* from New Zealand, are preserved in alcohol and came via the Royal College of Surgeons to the BMNH in 1845 (BURTON 1969). An additional mounted bird of *Vini peruviana* from Otaheite might also have a COOK origin as it was also obtained from the Royal College of Surgeons in 1845.

A third is a *Nestor meridionalis septentrionalis* from the North Island of New Zealand. This specimen was re-discovered during work on this publication, although it had already been listed in SALVADORI (1891: 8). It is probably one of the two birds (that considered „female“) of lot 114 acquired by Dr. W. E. LEACH (1790-1836) on behalf of the BMNH at the 14th day of BULLOCK's auction (see fig. 2). The specimen is a mounted bird (without stand) in a pre-1840 preparation style (glass-eyes, shape) and registered before 1837 (cf. KNOX & WALTERS 1992). The old British Museum label reads »[Vellum Cat. 22, No.] 43a. *Nestor meridionalis* (Gm.) imm. Loc. New Zealand Pres. by Capt COOK. / *Nestor hypopodus*«. In COOK's journal some „Brown Parrots“ are mentioned for the third voyage. However, the subspecies *septentrionalis* occurs exclusively on the North Island, which was extensively visited during the first voyage only (BEAGLEHOLE 1955, 1961, 1967). The collected bird was regarded as an immature individual of the already known subspecies from the South Island (LORENZ 1902), and it was not until 1896 that this subspecies was considered as distinctive enough to be described (LORENZ 1896). Another *Nestor meridionalis* specimen, this time from the South Island, came to the BMNH via Baron Guillaume Michel Jerome MEIFFREN-LAUGIER DE CHARTROUSE (1772–1843, cf. birth register of the Département Bouches-du-Rhone), and may also have a COOK origin (cf. SHARPE 1906, LYSAGHT 1959, WHITEHEAD 1978). Baron LAUGIER acquired a „male“ (i.e. ssp. *meridionalis*) Nestor-parrot on BULLOCK's auction (14th day, lot 115, cf. JOHNSON & HEWETT 1979). Further research into the history of both specimens is wanted.

Two further COOK specimens are the Raiatea Parakeet *Cyanoramphus ulietanus* (cf. KNOX & WALTERS 1994) and Red-fronted Parakeet *Cyanoramphus novaezealandiae* (cf. WARREN 1966: *Platycercus cookii*). Both



Fig. 2: *Nestor meridionalis septentrionalis* from the North Island, New Zealand, deriving from COOK's voyages, registered in the old British Museum's Vellum Catalogue 22, No. 43a (right book), together with Ashton LEVER's publication (1790) „A companion to the Museum“.

Photo: H. TAYLOR

© The Natural History Museum

were among the batch of BULLOCK's auction bought by LEACH on Friday, 21st May 1819 (probably lots 33 & 42 and 112, respectively, cf. JOHNSON & HEWETT 1979).

In W. E. LEACH's catalogue, the so-called „Old Catalogue“ (KNOX & WALTERS 1992; WHEELER 1996), an entry (p. 109) for an Australian Maned Wood Duck *Chenonetta jubata* is found, which refers to the collection of Sir Joseph BANKS and to LATHAM's (1801) description. Most of BANKS' specimens from Australia derived from COOK's voyages (WHITEHEAD 1969) or the Australian collector John WHITE (1756-1832) (STRESEMANN 1951; FARBER 1982). The younger Vellum Catalogue (cf. KNOX & WALTERS 1992) volume 42 no. 20a refers to a specimen of Maned Wood Duck from „N. Holl.“ with no further data, a specimen which is still in the collection today. Between these two catalogue entries lie (in the longest case) two decades of collecting in Australia. However, other Australian specimens (i.e. BROWN, Lady CARRINGTON, HARDWICK et al.) are all well documented in the Vellum Catalogue. Therefore I believe that it is fair to state that the two entries mentioned above refer to the same bird, and that the specimen bearing the Vellum Catalogue number 20a is indeed a specimen of BANKS' collection and perhaps of COOK origin.

The BMNH also possesses a *Trichoglossus haematochrous mohicanus* from the former collection of Sir Ashton LEVER, the famous Museum Leverianum. The BMNH acquired the bird in 1909 among a batch of 29 Leverianum specimens from the Royal College of Surgeons. The BMNH cruelly dismantled LEVER's old

glass-cases, ex-mounting the birds and even destroying several of them during this process, leaving the museum subsequently with 8 LEVER specimens only. This surviving specimen of the Australian Rainbow Lorikeet was collected on COOK's voyages.

The last specimen from the COOK collection is a recently re-discovered hummingbird nest housed in the BMNH nest collection which originates from COOK's first voyage in 1768-1771. This nest arrived together with the botanical collection of COOK's naturalists, Joseph BANKS & Daniel Carlsson SOLANDER (1733-1782) (STEINHEIMER 2003).

One additional specimen, the type of *Aplonis mavoriana*, previously assumed to derive from one of COOK's voyages (cf. SHARPE, 1906), turned out to have a different origin (STRESEMANN 1949; LYSAGHT 1959; OLSON 1986).

There is further potential in the BMNH collection for the revelation of additional COOK specimens, especially among the ex-mounted birds from the Royal College of Surgeons, Baron LAUGIER and the dealer Benjamin LEADBEATER. Additional research is also wanted into the hummingbird case of the Natural History Museum's public galleries at South Kensington, London. The case has always been associated with BULLOCK's name and may be the item mentioned in BULLOCK's auction catalogue, 17th day, lot 92.

2.2 Charles DARWIN

The detailed study of Charles DARWIN's (1809-1882) Beagle bird collection started 162 years after its arrival at Britain, when Richard KEYNES, one of the great-grandchildren of Charles DARWIN, asked to see these specimens at the BMNH in 1998. However, ad hoc, only a handful of DARWIN specimens could be produced, besides most types and Galapagos specimens, which were already well known. Since then a detailed analysis of Charles DARWIN's bird collection has been undertaken (Keynes 2000; Steinheimer 1999, 2000, 2001). During the voyage of the H.M.S. Beagle Darwin collected 483 dry bird items (459 skins, with the rest being nests, eggs and bird parts), mainly in southern South America. When he returned to Britain in October 1836, he started to sort out his bird specimens in a rented place in London, having already left one specimen at Cambridge, where his collection had been stored until his arrival at John Steven HENSLOW's (1796-1861) house (specimens had arrived already as early as 1835 when shipments were sent „home“ from the voyage).

Some were given to the BMNH directly, some to his friend and colleague Thomas Campbell EYTON (1809-1880), others to Baron MEIFFREN LAUGIER DE

CHARTROUSE (see above), but most went to John GOULD (1804-1881) at the Zoological Society Museum in London (STEINHEIMER 1999). This museum was broken up in 1855. George Robert GRAY (1808-1872), on behalf of the BMNH, was allowed first choice, but missed out many of DARWIN specimens (SHARPE 1906), which subsequently disappeared into many private collections. Some of them later came to the BMNH via the John GOULD, Philip Lutley SCLATER (1829-1913), John Henry GURNEY (1819-1890) and Osbert SALVIN (1835-1898) & Frederick DU CANE GODMAN (1834-1919) collections, whereas others are found today at Washington DC (via GOULD), Edinburgh (via GOULD), Melbourne (via GOULD), Leiden (via GOULD, Gustav Adolph FRANK (1808-1880)) & Coenraad Jacob TEMMINCK (1770-1858), Liverpool (via GOULD & Henry Baker TRISTRAM (1822-1906)), Norwich (via J. H. GURNEY), and Manchester and probably Dundee (via exchange BMNH).

About 200 specimens have not been located at all so far. I have also been unable to identify 20 bird entries of DARWIN's notes, which are generally addressed as „bird“, „Lanius“, „finch“, etc. (see also BARLOW 1963, SULLOWAY 1982a,b).

Fifteen specimens still bear an original field label by Charles DARWIN. The labels are made from a piece of scrap paper tied to the legs or necks of the birds (see fig. 3). The labels contain only an ink/pencil-written number, except for three labels which bear additional information. The numbers refer to Charles DARWIN's note books, which list locality, date and a very basic name (mainly a genus name of a similar European equivalent) of each bird specimen, and rarely, additional information on certain characters, behaviour and habitat. A detailed list of all avian specimens col-

lected by Charles DARWIN is in preparation (some are already included in KEYNES 2000).

Besides the famous and much studied Beagle collection, The Natural History Museum also possesses specimens which DARWIN researched for his ideas on evolution, i.e. 60 domestic pigeon skins and 6 domestic duck skins as well as 11 skeletons of ducks, 46 of pigeons and 28 of chickens. Furthermore, DARWIN also donated a small collection of 26 (25 still at the BMNH) Persian birds from Teheran to the museum, which were previously in Sir John MURRAY's (1841-1914) possession.

2.3. Alfred Russel WALLACE

The last specimen to arrive at the BMNH from Alfred Russell WALLACE's (1823-1913) bird collection was a skin of the Fork-tailed Woodnymph *Thalurania furcata furcataoides*, which was donated by Richard WALLACE, the grandson of A. R. WALLACE, in July 1999 on the initiative of the author. It probably originally belonged to the type series of 7 specimens used by John GOULD (1861) for the first description of this (sub-) species (inclusive the new specimen, 6 of the types are now at the BMNH). This male specimen, collected at Pará in Brazil in April 1849, still has an original field label by WALLACE bearing in pencil a collector's number (201), locality (Pará), sex (male), date (Ap. 49) and the collector's initials (AW) on a tiny cardboard label, size 7 x 19 mm; plus the well-known printed label of WALLACE's collection. Most of WALLACE's surviving South America collection was sold via his agent Samuel STEVENS (1817-1899) in London directly to the BMNH and to Frederick DU CANE GODMAN (1834-1919), whose collection later also came to the BMNH. However, WALLACE had already lost two thirds of the collection in a fire on the homebound voyage. The Birds of Prey from this expedition were directly given to Richard Bowdler SHARPE (1847-1909) at the BMNH for his work on the first volume of the „Catalogue of Birds“ (SHARPE 1906). Many of these specimens at the BMNH still have the original field label attached to them. Such careful labelling was rarely done in these early days of the exploration of Brazil; only the Austrian Johann NATTERER (1787-1843), from whom the BMNH obtained some specimens via Vienna Museum, and the SALVIN & GODMAN and SCLATER collections had similar data completeness. Subsequently, the BMNH also acquired thousands of WALLACE's skins from the „Malay Archipelago“, which were widely used by the BMNH for exchanges. WALLACE also sold many skins directly or via the dealer STEVENS to other institutions. In Britain, WALLACE's specimens are found at e.g. Derby Museum and Art Gallery, National Museums & Galleries on Merseyside Liverpool, Manchester



Fig.3: *Columba picui picui* from Charles DARWIN's Beagle collection – original field label no. 1272.

Photo: H. TAYLOR

© The Natural History Museum

Museum, Nottingham Natural History Museum, Sheffield City Museum, The Natural History Museum, etc.

2.4 A selection of German/Austrian ornithologists represented with specimens at the BMNH

That the ornithological collection at the BMNH, Tring, also holds archival/printed material (cf. WARR 1996; STEINHEIMER 2002a, 2002b) and some specimens collected by Austrian and German collectors may seem obvious. However, the great amount of such material, normally thought of as mainly being at German or Austrian institutions, makes it worthwhile to point out certain facts. As a generality, German and Austrian collectors made an essential contribution to the BMNH holdings of birds from Central & Eastern Europe, Palaearctic Asia, some parts of South America (especially Brazil, Chile and Guianas) and East Africa. While most material from Asia and Europe came via the Henry SEEBOHM (1832-1895) and Edward HARGITT (1835-1895) collections, those from America were included in the collections of Philip Lutley SCLATER and Osbert SALVIN & Frederick DU CANE GODMAN. The BMNH eggs collected by German and Austrian collectors derive mainly from Walter ROTHSCHILD's (1868-1937) collection (see appendix).

2.4.1 Ernst HARTERT

HARTERT (1859-1933) came to world-wide fame as the curator of Walter ROTHSCHILD's zoological museum at Tring (i.a. SHARPE 1906, ROTHSCHILD 1983) and as the author of the *Vögel der palaearktischen Fauna* (HARTERT 1903-1922, 1923; HARTERT & STEINBACHER 1932-1938). However, earlier he was already very active in ornithology and collecting (i.a. HARTERT 1887, 1901-02; HAFFER 1997), and from a very early age until his old days he had a special affection for East Prussia. In spring 1892, just a few months before HARTERT himself moved to Britain to take up the directorship of the ROTHSCHILD Museum (Tring), the BMNH obtained 98 bird skins in exchange, mainly from HARTERT's early trips to East Prussia and Central Germany (information extracted from register; BMNH reg. no. 1892.4.11.1-98). It is not known what HARTERT received from the BMNH in exchange. However, in those days the BMNH still exchanged widely all kinds of specimens, including syntypes or other important, exotic material (e.g. three of Charles DARWIN's specimens from South America went to Manchester and Dundee Museums in the same year).

The birds received by the BMNH originate from a 22 to 24 year old HARTERT, when he was collecting around the military bases Wesel at the Rhine and Pil-

lau in East Prussia, where his father was stationed as an officer. Others come from HARTERT's study times at Marburg in 1884 and from his stays in East Prussia during the spring months of 1881-1884. The most recent specimen is a female *Phoenicurus ochruros* from Frankfurt, which was collected in the same month in which the collection was registered at the BMNH in London. One specimen, an *Eremophila alpestris*, is from Lake Baikal, one *Serinus serinus* from Nizza (ex.coll. J. G. C. E. REY (1838-1909), Leipzig), 6 *Aegithalos caudatus trivirgatus* (all still at BMNH, collector unknown) and one *Picus major* from Japan (not found October 2001). Two *Sturnus vulgaris* originate from North Spain (one still at the BMNH: original label: »Nord Spanien« [in pencil] seems to have been written by the teenager HARTERT). Meanwhile some of the specimens can no longer be traced or have been given away to other institutions (e.g. Oxford University Museum in 1951), but the major part of HARTERT's collection is still to be found at Tring. HARTERT had himself added English locality names prior to the sale. The rest of the labels is handwritten German (all in ink on little pieces of cardboard). From HARTERT's time in Britain, the museum holds many eggs from North Africa.

Among the 48 different species listed in the BMNH register, *Eremophila alpestris* from the Island of Neuwerk and *Acrocephalus paludicola* (however, not the specimen mentioned in HARTERT 1887) would have been the most exciting records, but none of them could be located in October 2001. However, a *Crex crex* from Militsch in Silesia and a male *Sterna albifrons* from Wesel, a very rare summer vagrant to Central Germany, are still at the BMNH today (both original HARTERT labels). The latter is an excellent example of HARTERT's thoroughness, as the detailed label information reads as follows: »[No.] 287. *Sterna minuta*. ad G [loc.] Wesel [date] 20. 7. 1883. Totalbreite 51, Totallänge 25 cm, Lg. bis Schwanzende 21 ½ cm. Schnabel u. Ständer rothgelb. Im Magen Fische bis zu 5 cm Länge. E. Hartert.«

It is also of interest that the BMNH library possesses a copy of HARTERT's guest book from his house „Bellevue“ between 1896-1918. The original book is still in family possession at Amsterdam, Netherlands, to where HARTERT's widow Claudia Bernadine Elisabeth HARTERT (1863-1958) emigrated in 1939. The guest book lists many of the international visitors to the Rothschild Museum at Tring and shows well the signatures of the leading ornithologists at the turn of century. It also includes treasures like drawings by J. G. KEULEMANS and little poems by C. GRIMM.

2.4.2 Christian Ludwig LANDBECK

Christian Ludwig LANDBECK's (1807-1890) contribution to ornithology is already well documented (i.a. SHARPE 1906; BACMEISTER 1914, 1950; HELLMAYR 1932; GEBHARDT 1964; TORRES-MURA & LEMUS 1989; ROUNDS 1990; ARAYA & BERNAL 1995; MEARN & MEARN 1998; STEINHEIMER 2002). However, I would like to draw attention to the whereabouts of his avian collections from Chile, on which he based much of his science. Surprisingly, the BMNH holds a large number of these bird skins from Chile. Several hundred bird skins at the BMNH are labelled with a reference to LANDBECK as the collector. None of them comes directly from the Santiago Museum, where LANDBECK was deputy director, but rather from the private collectors Philip Lutley SCLATER, Harry Berkeley JAMES (1846-1892) and Osbert SALVIN & Frederick DU CANE GODMAN. For several bird taxa, namely the Rhinocryptidae (cf. LANDBECK 1877), LANDBECK's specimens were the first which the BMNH obtained, thus being very important material in those days. Furthermore, even today BMNH holdings of certain Chilean bird subspecies were nearly entirely collected by LANDBECK.

Other institutions which share the LANDBECK collection are the Museo Nacional de Historia Natural in Santiago (~1,000 specimens from LANDBECK's times there, J.C. TORRES-MURA, in litt. 18 May 2001), the Muséum National d'Histoire Naturelle at Paris and the Nationaal Natuurhistorisch Museum at Leiden (not clearly assigned to LANDBECK as collector, however), the Museo Regionale di Scienze Naturali at Turin (Claudio PULCHER, in litt. 4 December 2000), the Zoologische Staatssammlung at Munich (one *Ortygonax rufirhynchos*) and the Staatliches Museum für Naturkunde at Stuttgart (one *Cathartes aura* specimen).

Furthermore, the BMNH houses also some of LANDBECK's Chilean bird eggs as well as several of his original illustrations for the planned book of the Birds of Germany, Alsace and Switzerland, entitled Abbildungen der Vögel Deutschlands, des Elsaßes und der Schweiz (cf. WARR 1996, JACKSON 1999). These LANDBECK drawings comprise 53 watercoloured pencil sketches and one galley proof of 48 Middle European bird species and 3 from elsewhere (Northern Flicker, Rose-coloured Starling and Black-headed Bunting). For a detailed account of each drawing see NEUMANN (1982) and STEINHEIMER (2002). These paintings and his many pre-emigration publications (e.g. LANDBECK 1834, 1842, 1843a-f, 1844a-c, 1846a-e, 1850) show well that LANDBECK was already an authority in ornithology before his emigration in 1852 (NEUMANN 1982; HÖLZINGER 1985; SCHLENKER 1985, 1989; STEINHEIMER 2002).

2.4.3 Eduard RÜPPELL

The history of Eduard RÜPPELL's (1794-1884) material at the BMNH starts with Ronald Campbell GUNN's (1808-1881) residency and collecting activities in Tasmania from 1829 onwards. When GUNN presented 157 avian specimens from Tasmania to the BMNH in the years 1829-1834 (not registered until January 1838), three Emu skins were among the lot. GUNN (1852) later pointed out that there was a slight difference between the Emus from Tasmania and those from mainland Australia. However, it took until the early 20th century, before the idea of a separate Emu (sub-) species, *Dromaius n. diemenensis*, was established in science (LE SOUËF 1907, cf. SCOTT 1923). Long before this, in the year 1834, the BMNH started an extended exchange/trade with Eduard RÜPPELL from Frankfurt am Main. One of the three „Tasmanian“ Emu skins of the BMNH went already in the same year to Frankfurt, leaving the BMNH with only two whole skins of this nowadays extinct (sub-) species. RÜPPELL himself came on a visit to the BMNH-predecessor, the Zoology Department of the British Museum (RÜPPELL 1845). During the next 27 years or so, the BMNH was able to obtain many skins from RÜPPELL's famous travels to Abyssinia (RÜPPELL 1835-40, 1845) for the BMNH museum's collection. Some birds of the first lot of RÜPPELL's skins are listed in the old BMNH Vellum catalogues only (in use until 1837, cf. KNOX & WALTERS 1992), but later purchases and some later registered specimens of the first lot are also found in the BMNH registers for 1842, 1845 and 1861, making it very difficult to enumerate an exact number of RÜPPELL's skins at the BMNH (at least 57 skins among the registered material).

Modern comparisons, however, have revealed that the exchanged Emu specimen, now at the Senckenberg Museum at Frankfurt a.M., is in fact an Australian Emu, *Dromaius n. novaehollandiae* (STEINBACHER 1959; G. MAYR in litt. 13 January 2000), which GUNN had reported lived in his gardens (GUNN 1852). But even the latter subspecies was new for the Frankfurt Museum as Philipp Jacob CRETZSCHMAR (1786-1845), then director of the museum, reported to John GOULD in a letter dated from 26 August 1833 (NHM archives, GOULD correspondence).

Since then, the BMNH holds since then a very fine collection of early Abyssinian birds, among them some syntypes and paralectotypes (cf. STEINBACHER 1949), respectively, of RÜPPELL's names, while Frankfurt holds an early skin of an introduced Australian Emu to Tasmania and presumably other material from the BMNH. All types were acquired from the Frankfurt Museum except four, which were collected by Sir William Cornwallis HARRIS (1807-1848) and were

been described by RÜPPELL subsequently to his trip to London. Other „co-types“ of RÜPPELL's Abyssinian expeditions are at Frankfurt, Berlin, Vienna, Leiden and Turin. A complete list of RÜPPELL's type specimens at the BMNH, many of them currently not recognized as such, is in preparation (see figure 4).



Lamprotornis purpuropterus Ruppell 1845

Fig. 4: *Lamprotornis purpuropterus purpuropterus* RÜPPELL, 1845, a newly discovered type specimen of Eduard RÜPPELL at the BMNH (reg. no. 1845.6.2.12.).

Photo: H. TAYLOR

© The Natural History Museum

Acknowledgements

Many thanks to Effie Warr, Paul Cooper, Ann Datta and Alison Harding for their help and access to the BMNH library, Susan Snell, Paula Lucas and Polly Smith for checking correspondence files and drawings at the BMNH Archive, Michael Walters for identifying specimens and sharing information on William Bullock. Harry Taylor took with his usual professionalism many of the photos of specimens/drawings from the BMNH. Wilfried Schmid, Rolf Schlenker and Ulrich Landbeck put much of their material on Landbeck to my disposal. I would like to thank Richard Keynes, Richard Wallace, Robert Prys-Jones and George Beccaloni for their help and interest in my research on Darwin and Wallace. Sylke Frahnert, Jürgen Fiebig & Hannelore Landsberg (Museum für Naturkunde der Humboldt-Universität zu Berlin), Friederike Woog & Claus König (Naturkunde-Museum Stuttgart), Peter Mansfeld (Ottonum Naturkundemuseum der Stadt Kassel), Gert Tröster (Zoologisches Museum der Universität Göttingen), Michael Schmitz & Christiane Schilling (Naturkunde-Abteilung Niedersächsisches Landesmuseum Hannover), Hans-Walter Mittmann (Vivarium & Naturkunde-Museum Karlsruhe), Josef Reichholz (Zoologische Staatssammlung München), Matthias Mäuser (Naturkunde-Museum Bamberg), Siegfried Eck (Naturkunde-Museum Dresden), Gerald Mayr (Senckenberg-Museum Frankfurt), Ernst Bauernfeind (Naturhistorisches Museum Wien, during the years 1994-1998), René Dekker (Naturalis, Nationaal Natuurhistorisch Museum Leiden), Eric Pasquet (Muséum National d'Histoire Naturelle Paris), Claudio Pulcher (Museo Regionale di Scienze Naturali Turin), Juan Torres-Mura (Museo Nacional de Historia Natural Santiago), Storrs Olson (Smithsonian Institution Washington DC), Paul Sweet (American Museum of Natural History New York), Les Christidis & Michael Mules (Victoria Museum Melbourne), Bob McGowan (National Museums of Scotland Edinburgh), Maggie Reilly (University of Glasgow Hunter-

ian Museum & Art Gallery), Tony Irwin (Castle Museum Norwich), Clem Fisher (National Museums & Galleries on Merseyside Liverpool), Henry McGhie (The Manchester Museum Manchester), Malgosia Atkinson (University Museum Oxford), Ray Symonds (University Museum Cambridge), Les Jessop (Hancock Museum Newcastle upon Tyne), Barry Davis (Royal College of Surgeons London) and The Natural History Museum Tring made it possible to use their collections and data-bases, respectively. Jürgen Fiebig assisted my work at Berlin incredibly. Thanks also to Phil Rainbow and the Department of Zoology of The Natural History Museum for funding my studies at Paris, Norwich, Liverpool and Leiden. Renate van den Elzen, Christoph Hinkelmann, Michael Walters and Robert Prys-Jones commented on earlier drafts. Goetz Rheinwald assisted in the editing process.

Literature

ALEXANDER, E. P. (1985): William Bullock: Little-Remembered Museologist and Showman. Curator **28**(2): 117-147.

ARAYA, B., & BERNAL, M. (1995): Aves. – pp. 350-360 in: Diversidad Biológica de Chile (eds. SIMONETTI, J. A., M. T. K. Arroyo, A. E. Spotorno, E. Lozada). Comité Nacional de Diversidad Biológica, Comisión Nacional de Investigación Científica y Tecnológica, Santiago.

BACMEISTER, W. v. (1914): Christian Ludwig Landbeck. Jh. Ver. vaterländ. Nat.kde. Württ. **70**: 30-46.

BACMEISTER, W. v. (1950): Christian Ludwig Landbeck. Landwirt und Naturforscher 1807-1890. Schwäbische Lebensbilder **5**: 314-329.

BAEGE, L. 1964: Über ehemalige private Vogelsammlungen in Thüringen – Ihre Entstehung, ihr Schicksal und Verbleib. Beiträge zur Vogelkunde **10**(3): 129-147.

BARLOW, N. (1963): Darwin's ornithological notes. Bull. Brit. Mus. (Nat. Hist.). Historical series **2**(7): 201-278.

BEAGLEHOLE, J. C. (ed.) (1955): The voyage of the Endeavour 1768-1771 – The Journals of Captain James Cook on his voyages of Discovery. Hakluyt Society, Cambridge University Press, Cambridge.

BEAGLEHOLE, J. C. (ed.) (1961): The voyage of the Resolution and Adventure 1772-1775 – The Journals of Captain James Cook on his voyages of Discovery. Hakluyt Society, Cambridge University Press, Cambridge.

BEAGLEHOLE, J. C. (ed.) (1967): The voyage of the Resolution and Discovery 1776-1780 – The Journals of Captain James Cook on his voyages of Discovery. 2 vols., Hakluyt Society, Cambridge University Press, Cambridge.

BOURNE, W. R. P. (2001): The status of the genus *Lugensa* Mathews and the birds collected by Carmichael on Tristan da Cunha in 1816-1817. Bull. Brit. Ornithol. Club **121**(3): 215-216.

BULLOCK, W. (1809): A companion to the Liverpool Museum [...]. 7th ed. Richard Crutwell, Bath.

BULLOCK, W. (1811): A companion to Mr. Bullock's Museum [...]. 10th ed.. Henry Reynell, London.

BULLOCK, W. (1812): A companion to Mr. Bullock's London Museum [...]. 12th ed. Bullock, London.

BULLOCK, W. (1813): A companion to London Museum [...]. 15th ed. Whittingham & Rowland, London.

BURTON, P. J. K. (1969): Two Bird Specimens probably from Cook's Voyages. Ibis **111**: 388-390.

CARMICHAEL, D. (1819): Some Account of the Island of Tristan da Cunha and of its Natural Productions. Trans.

Linn. Soc. Lond. **12**: 483-499.

CHALMERS-HUNT, J. M. (1976): Natural History Auctions 1700-1972. Sotheby Parke Bernet, London.

DEKKER, R. (1999): [bird chapters] in Extinct and Endangered Animals – Swift as a Shadow (ed. Purcell, R.). Houghton Mifflin, New York.

EAMES, C. J., STEINHEIMER F. D. & B. Ros (2002): A collection of birds from the Cardamom Mountains, Cambodia, including a new subspecies of *Arborophila cambodiana*. Forktail **18**: 67-86.

ELTER, O. (1986): La Collezione Ornithologica del Museo di Zoologia dell'Università di Torino. Cataloghi **8**, Museo Regionale di Scienze Naturali, Turin.

FARBER, P. L. (1982): The emergence of ornithology as a scientific discipline: 1760-1850. – Studies in the History of Modern Science **12**. D. Reidel Publishing Company, Dordrecht, Boston & London.

FULLER, E. (1999): The Great Auk. Errol Fuller, Southborough.

FULLER, E. (2001): Extinct Birds. Revised edition, Cornell University Press, Ithaca.

GBEHRADT, L. (1964): Die Ornithologen Mitteleuropas. Brühl'scher Verlag, Giessen.

GBEHRADT, L. (1970): Die Ornithologen Mitteleuropas. Band 2. J. Ornithol. Sonderheft **111**: 1-233.

GBEHRADT, L. (1974): Die Ornithologen Mitteleuropas. Band 3. J. Ornithol. Sonderheft **115**: 1-126.

GBEHRADT, L. (1980): Die Ornithologen Mitteleuropas. Band 4. J. Ornithol. Sonderheft **121**: 1-80.

GLUTZ V. BLOTZHEIM, U. N. G. v., BAUER, K. M. & BEZZEL, E. (1977): Handbuch der Vögel Mitteleuropas - Charadriiformes (2. Teil). Akademische Verlagsgesellschaft, Wiesbaden.

GOULD, J. (1841): The Zoology of the Voyage of the H.M.S. Beagle, under the command of Capt. Fitzroy [...]. Pt. 3: Birds. London.

GOULD, J. (1861): An Introduction to the Trochilidae or family of Humming Birds. London.

GUNN, R. (1852): [letter to editor]. Pap. and Proc. Roy. Soc. Van Diemen's Land **II(1)**: 168-170.

HAFFER, J. (1997): Ornithologen-Briefe des 20. Jahrhunderts. Ökologie der Vögel **19**: 1-980.

HARTERT, E. (1887): Vorläufiger Versuch einer Ornith. Preussens. Mittheil. Ornith. Ver. Wien: 1-56.

HARTERT, E. (1901-02): Aus den Wanderjahren eines Naturforschers. R. Friedländer & Sohn, Berlin.

HARTERT, E. (1903-1922): Die Vögel der paläarktischen Fauna. R. Friedländer & Sohn, Berlin.

HARTERT, E. (1923): Die Vögel der paläarktischen Fauna. Nachtrag I. R. Friedländer & Sohn, Berlin.

HARTERT, E., & STEINBACHER, F. (1932-1938): Die Vögel der paläarktischen Fauna. Ergänzungsband. R. Friedländer & Sohn, Berlin.

HARTING, J. E. (1874): On rare or little-known Limicola. Ibis **4(3)**: 241-261, plate IX.

HAUSER-SCHÄUBLIN, B. & KRÜGER, G. (1998): James Cook – Gifts and Treasures from the South Seas, The Cook/Forster Collection Göttingen. Prestel, Munich, New York.

HELLMAYR, C. E. (1932): The Birds of Chile. Field Museum of Natural History Publ. **308**, Zool. Series **XIX**, Chicago.

HÖLZINGER, J. (1985): Handschriftliche Notizen von Christian Ludwig Landbeck und Theodor Heuglin zu Landbecks »Systematischer Aufzählung der Vögel Würtemberg« (1834). Ornithol. Jh. Bad.-Württ. **1**: 81-88.

HORN, W., KAHLÉ, I., FRIESE, G. & GAEDIKE, R. (1990): Collectiones entomologicae: Ein Kompendium über den Verbleib entomologischer Sammlungen der Welt bis 1960. Akademie der Landwirtschaft der DDR, Berlin.

JACKSON, C. E. (1998): Sarah Stone: Natural Curiosities from the New Worlds. Merrell Holberton, London.

JACKSON, C. E. (1999): Dictionary of Bird Artists of the World. Antique Collectors' Club, Woodbridge.

JOHNSON, H. & HEWETT, J. (eds. 1979): Sale Catalogue of the Bullock Museum 1819. Hillman Printers, Somerset.

KEYNES, R. D. (2000): Charles Darwin's zoology notebooks & specimen lists from H.M.S. Beagle. Cambridge University Press, Cambridge.

KNOX, A. G., & WALTERS, M. P. (1992): Under the skin: the bird collections of the Natural History Museum. Bull. Brit. Ornithol. Club, Cent. Suppl. **112A**: 169-190.

KNOX, A. G., & WALTERS, M. P. (1994): Extinct and Endangered Birds in the collections of The Natural History Museum. Bull. Brit. Ornithol. Club, Occasional Publ. **1**.

LANDBECK, C. L. (1834): Systematische Aufzählung der Vögel Würtembergs. I. G. Cotta'schen Verlagshandlung, Stuttgart.

LANDBECK, C. L. (1842): Die Reiher-Insel bey Adony in Ungarn. Isis (Oken) **35(4)**: 267-283.

LANDBECK, C. L. (1843a): Die Löffler. *Platalea* LINNÉ. – pp. 41-45, pl. 6. in: Das Buch der Welt. Hoffmann'sche Verlags-Buchhandlung, Stuttgart.

LANDBECK, C. L. (1843b): Der Eisvogel (*Alcedo* LINN.). – pp. 102-105 in: Das Buch der Welt. Hoffmann'sche Verlags-Buchhandlung, Stuttgart.

LANDBECK, C. L. (1843c): Vögel-Colonien im nördlichen und südlichen Europa. – pp. 154-159, pl. 20b in: Das Buch der Welt. Hoffmann'sche Verlags-Buchhandlung, Stuttgart.

LANDBECK, C. L. (1843d): Beitrag zur Naturgeschichte des Pelikans. – pp. 179, pl. 23. in: Das Buch der Welt. Hoffmann'sche Verlags-Buchhandlung, Stuttgart.

LANDBECK, C. L. (1843e): Die Vögel Sirmiens. Isis (Oken) **36(1&2)**: 2-41, 83-113.

LANDBECK, C. L. (1843f): Beyträge zur Vogelkunde. Isis (Oken) **36(8)**: 597-604.

LANDBECK, C. L. (1844a): Bienenfresser. (*Merops* LINN.) – pp. 22-29, 2 pls. in: Das Buch der Welt. Hoffmann'sche Verlags-Buchhandlung, Stuttgart [not seen by author].

LANDBECK, C. L. (1844b): Der Larventaucher. *Mormon Illig*. – pp. 72-76, pl. 10 in: Das Buch der Welt. Hoffmann'sche Verlags-Buchhandlung, Stuttgart.

LANDBECK, C. L. (1844c): Die Flamingos. *Phoenicopterus* LINN. – pp. 136-144, 1 pl. in: Das Buch der Welt. Hoffmann'sche Verlags-Buchhandlung, Stuttgart [not seen by author].

LANDBECK, C. L. (1846a): Systematisches Verzeichniss der Vögel Würtembergs. Jh. Ver. vaterländ. Naturkde. Württ. **2**. Jhrg. (2): 212-238.

LANDBECK, C. L. (1846b): Der weißschwänzige Seeadler. *Falco albicilla* Linné. pp. 50-51, 1 pl. in: Das Buch der Welt. Hoffmann'sche Verlags-Buchhandlung, Stuttgart [not seen by author].

LANDBECK, C. L. (1846c): Die Racker. *Coracias* Linné. – pp. 240-244, 1 pl. in: Das Buch der Welt. Hoffmann'sche Verlags-Buchhandlung, Stuttgart [not seen by author].

LANDBECK, C. L. (1846d): Der Seidenschwanz. *Bombycilla*. – pp. 304-307, 1 pl. in: Das Buch der Welt. Hoffmann'sche Verlags-Buchhandlung, Stuttgart [not seen by author].

LANDBECK, C. L. (1846e): Beyträge zur Vogelkunde. Isis (Oken) **39**(9): 641-683.

LANDBECK, C. L. (1850): Beitrag zur Ornithologie Griechenlands etc.. Jh. Ver. vaterländ. Naturkde. Württ. **5**. Jhrg. (6): 253-256, pl. 2.

LANDBECK, C. L. (1877): Bemerkungen über die Singvögel Chile's. Der Zool. Garten **18**: 233-261.

LE SOUËF, D. (1907): [without title]. Bull. Brit. Ornithol. Club **21**: 13.

LEVER, A. (1790): A companion to the Museum, (Late Sir Ashton Lever's) [...]. Pt. 1 & Pt. 2, London.

LORENZ, L. v. (1896): Ueber die Nestor-Papageien. Verh. k.k. zool.-bot. Ges. Wien **46**: 197-199.

LORENZ, L. v. (1902): Zur Ornithologie Neuseelands. Ann. k.k. Naturhist. Hofmus. Wien: 301-322.

LORENZ, T. & KOHTS, A. E. (1910-1911): Die Birkhühner Russlands, deren Bastarde, Ausartungen und Varietäten. Theodor Lorenz' Nachfolger, Moscow.

LYSAGHT, A. M. (1959): Some eighteenth century bird paintings in the library of Sir Joseph Banks (1743-1820). Bull. Brit. Mus. (N.H.), Hist. Ser. **1**(6): 251-371.

MEARNS, B. & MEARNS, R. (1998): The Bird Collectors. Academic Press, San Diego.

MEDWAY, D. G. (1979): Some ornithological results of Cook's third voyage. J. Soc. Biblphy. nat. Hist. **9**(3): 315-351.

MERREM, B. (1784): Beyträge zur besonderen Geschichte der Vögel. Göttingen, Leipzig.

MOLINA, G. (1782): Saggio sulla storia naturale del Chili. Nella Stamperia di S. Tommaso d'Aquino, Bologna.

MOREAU, R. E. & GREENWAY, J. C. (1962): Family Ploceidae, Weaverbirds. – pp. 3-75 in: Check-List of Birds of the World (eds. MAYR, E., & GREENWAY, J. C.). vol. **XV**. Museum of Comparative Zoology, Cambridge.

MÜLLER, A. (1882): Die Ornithologie der Insel Salanga sowie Beiträge zur Ornithologie der Halbinsel Malakka. J. Ornithol. **30**(4): 353-448.

MÜLLER, A. (1885): Nachtrag zur Ornithologie der Insel Salanga. J. Ornithol. **33**(2): 151-162.

MULLENS, M. A. (1917-1918): Some Museums of old London – II. William Bullock's London Museum. Museums Journal: 51-56, 132-137, 180-187.

NEUMANN, J. (1982): Historische Studie über die »Naturgeschichte aller Vögel Europas«. Jh. Ges. Naturkde. Württ. **137**: 117-157.

OLPHE-GALLIARD, L. (1892): Christian Ludwig Brehm's ornithologische Briefe. Ornithol. Jb. **3**(4): 127-162.

OLSON, S. L. (1986): An early account of some birds from Mauke, Cook Islands, and the origin of the 'Mysterious Starling' *Aplonis mavornata* BULLER. Notornis **33**: 197-208.

PELZELN, A. (1873): On the Birds in the Imperial Collection at Vienna obtained from the Leverian Museum. Ibis **3**: 14-54, 105-124.

ROSELAAR, K. [S.] (2003): An inventory of major European bird collections. - pp. 253-337 in: Why Museums Matter: Avian Archives in an Age of Extinction (eds. Collar, N. J., C. T. Fisher, C. J. Feare). Bulletin of the British Ornithologists' Club – Supplement **123A**.

ROTHSCHILD, M. (1983): Dear Lord Rothschild. Hutchinson, London.

ROUNDS, R. S. (1990): Men and Birds in South America 1492-1900. Q. E. D. Press, Fort Bragg.

RÜPPELL, E. (1835-1840): Neue Wirbelthiere zu der Fauna von Abyssinien gehörig [...]. Siegmund Schmerber, Frankfurt a.M..

RÜPPELL, E. (1845): Systematische Uebersicht der Vögel Nord-Ost-Afrika's [...]. Schmerber'sche Buchhandlung, Frankfurt a.M..

SALVADORI, T. (1891): Catalogue of the Psittaci, or Parrots, in the collection of the British Museum. Brit. Mus. (Nat. Hist.), London.

SALVADORI, T. (1908): [without title]. Bull. Brit. Ornithol. Club **21**: 78-79.

SALVADORI, T. (1914): Notizie storiche interno alla collezione ornithologica del Museo Torino. Mem. Acc. Sc. Torino.ser. **2**, **65**(5): 1-50.

SCHLENKER, R. (1985): Zum Verbleib von Christian Ludwig Landbecks Handexemplar der »Systematische Aufzählung der Vögel Würtemberg« (1834). Ornithol. Jh. Bad.-Württ. **1**: 89.

SCHLENKER, R. (1989): Christian Ludwig Landbecks »Naturgeschichte aller Vögel Europas«. J. Ornithol. **130**: 529-536.

SCLATER, W. L. (1930): Systema Avium Aethiopicarum. British Ornithologists' Union, [London].

SCOTT, H. H. (1923): A note on the King Island Emu. Pap. & Proc. Roy. Soc. Tasmania: 103-107.

SEEBOHM, H. (1881): Cichlomorphae: Part II. Catalogue of the Passeriformes or Perching Birds in the collection of the British Museum. Trustees of the Brit. Mus, London.

SHARPE, R. B. (1877): Catalogue of the Birds in the British Museum. Trustees of the Brit. Mus. (Nat. Hist.), London.

SHARPE, R. B. (1890): Catalogue of the Passeriformes of Perching Birds in the Collection of the British Museum – Sturniformes. Trustees of the Brit. Mus. (Nat. Hist.), London.

SHARPE, R. B. (1906): Birds. – pp. 79-515 in: The History of the Collections contained in the Natural History Departments of the British Museum (ed. LANKESTER, E. R.), vol. **II**(3).

STEINBACHER, J. (1949): Kritisches Verzeichnis von Eduard Rüppell's und Ph. J. Cretzschmar's Vogel-Typen. Senckenbergiana **30**(1/3): 99-124.

STEINBACHER, J. (1959): Weitere Angaben über ausgestorbene, aussterbende und seltene Vögel im Senckenberg-Museum. Senckenbergiana biol. **40**(1/2): 1-14.

STEINHEIMER, F. D. (1999): The whereabouts of Darwin's bird collections. Bull. Brit. Ornithol. Club **119**(3): 141.

STEINHEIMER, F. D. (2000): The bird collections of Tring – Restoring data to an historical collection. Nature First. The Magazine for Members of The Natural History Museum **18**: 16.

STEINHEIMER, F. D. (2001): Geschichte und Verbleib von Darwins Beagle Sammlung. J. Ornithol. **142** Sonderheft 1: 217 (abstract).

STEINHEIMER, F. D. (2002a): Christian Ludwig Landbeck's drawings for the „Birds of Germany, Alsace and Switzerland“ from the Rothschild Library, Tring, with some notes on Landbeck's and Wiebke's bird collections. Ökologie der Vögel **24**(1): 1-43.

STEINHEIMER, F. D. (2002b): Walter Rothschild's second Great Auk skeleton: a history of its posthumous voyage. Archives of Natural History **29**(3): 337-345.

STEINHEIMER, F. D. (2002c): Die unberührten Bergwälder Kambodschas – ein Bericht der internationalen Expedition in die Kardamom Berge (Februar/März 2000). Vogelschutz in Österreich **17**: 16-18.

STEINHEIMER, F. D. (2002d): A newly discovered paralectotype of *Pteroptochos megapodus* KITTLITZ, 1830. Bull. Brit. Ornithol. Club **122**(4): 312-314.

STEINHEIMER, F. D. (2003): A hummingbird nest from James Cook's Endeavour voyage, 1768-1771. Archives of Natural History **30**(1).

STEINHEIMER, F. D., EAMES, J. C., MEAS, C. & ROS, B. (2000): Birds. - pp. 87-98 in: Cardamom Mountains Biodiversity Survey 2000 (eds. DALTRY, J. C. & MOMBERG, F.). Fauna & Flora International, Cambridge.

STRESEMANN, E. (1949): Birds collected in the North Pacific area during Capt. James Cook's last voyage (1778 and 1779). Ibis **91**: 244-255.

STRESEMANN, E. (1950): Birds collected during Capt. James Cook's last Expedition (1776-1780). Auk **67**: 66-88.

STRESEMANN, E. (1951): Die Entwicklung der Ornithologie von Aristoteles bis zur Gegenwart. F. W. Peters, Berlin.

STRESEMANN, E. (1953): Birds collected by Capt. Dugald Carmichael on Tristan da Cunha 1816-1817. Ibis **95**: 146-147.

SULLOWAY, F. J. (1982a): The Beagle collections of Darwin's finches (Geospizinae). Brit. Mus. (Nat. Hist.) Bull. Zool. series **43**(2): 49-94.

SULLOWAY, F. J. (1982b): Darwin and His Finches: The Evolution of a Legend. J. History of Biol. **14** (1): 1-53.

SVET, Y. M., & FEDOROVA, S. G. (1978): Captain Cook and the Russians. Pacific Studies **2**(1): 1-19.

SWEET, J. M. (1970): William Bullock's collection and the University of Edinburgh, 1819. Annals of Science **26**(1): 23-32.

TORRES-MURA, J. C. & LEMUS, M. L. (1989): Tipos de aves en el Museo Nacional de Historia Natural: Catalogo Critico. Publicacion ocasional No. **44**, Dirección de Bibliotecas, Archivos y Museos, Santiago.

WARR, F. E. (1996): Manuscripts and Drawings in the Ornithology and Rothschild Libraries of The Natural History Museum at Tring. Bull. Brit. Ornithol. Club, Occ. Publ. No. **2**.

WARREN, R. L. M. (1966): Type-Specimens of Birds in the British Museum (Natural History) – Non-Passerines, Vol. **1**. Trustees of the Brit. Mus. (N.H.), London.

WARREN, R. L. M. & HARRISON, C. J. O. (1971): Type-Specimens of Birds in the British Museum (Natural History) – Passerines, Vol. **2**. Trustees of the Brit. Mus. (N.H.), London.

WHEELER, A. (1996): Zoological collections in the early British Museum – documentation of the collection. Archives of Natural History **23**(3): 399-427.

WHITEHEAD, P. J. P. (1969): Zoological Specimens from Captain Cook's Voyages. J. Soc. Biblphy. nat. Hist. **5**(3): 161-201.

WHITEHEAD, P. J. P. (1971): Museums in the history of zoology. Part 2. Museums Journal **70**(5): 155-160.

WHITEHEAD, P. J. P. (1978): A guide to the Dispersal of zoological Material from Captain Cook's voyages. Pacific Studies **2**(1): 52-93.

APPENDIX I

This list of German and Austrian collectors with specimens at the BMNH was compiled both by extracting from SHARPE (1906) and during three years of curation at the BMNH. Data & dates are from BAEGE (1984), GEBHARDT (1964, 1970, 1974, 1980), HORN et al. (1990), STEINHEIMER (2002a, d) and The Natural History Museum library web catalogue. Additional information was obtained from the catalogue entries of the SALVIN & GODMAN, SEEBOHM and HARGITT collections, as well as from the egg collector slip catalogue which has been well maintained by the current egg curator Michael WALTERS. As for some collectors the BMNH holds a few specimens only, whereas for others many hundreds of specimens are involved, I have added a number code indicating the amount of material and its main sources. This list should not be considered as complete.

The list only comprises those collectors whose mother language was German, who were born before 1910 and who lived at least partly in one of the German or Austrian counties (pre WW I extensions), thus leaving out BMNH holdings of collectors like Henry SEEBOHM, whose father was German, but lived in Britain, Theodor PLESKE (1858-1932), whose ancestors were German, but lived in Russia, Johann XÁNTUS (1825-1894), who considered himself Hungarian rather than Austrian, Konstantin TYZENHAUZ (1786-1853) & Konstantin Graf von BRANICKI (1824-1884), who spoke Polish as mother language, Fritz Wilhelm RIGGENBACH (1864-1944), who was a German speaking Swiss, and Ernst MAYR, who is a German born in 1904.

ANGELE, Theodor (1847-1926): one skin of *Haliaeetus niger*. 1) 5)

BALDAMUS, August Karl Eduard (1812-1893): eggs from Europe. 1) 9)

BAMBERG, Otto (1871-1942): eggs and skins from Turkestan & Transbaikalia. 2) ex parte 5) 9)

BAU, Alexander (1853-1926): eggs of *Circus pygargus*. 1) 7)

BEICK, Walter (1883-1933): specimens from North Kansu, China. 1) 9)

BERLEPSCH, Hans Graf von (1850-1915): skins from different localities (coll. by others). 2)

BOHDNDORFF, I. (collecting 1879-1882): skins of Nyam-Nyam Expedition. 1) 8)

BRANDT, Johann Georg Wilhelm (1794-1856): i.a. from Siberia & C-Asia (coll. by others).2)

BREHM, Alfred Edmund (1829-1884): skins from the Geo. Graph. Exp. West Siberia.1) 9)

BREHM, Christian Ludwig (1787-1864): ex-mount of

Numenius tenuirostris. 1) 5) 10)

BURMEISTER, Carl Hermann Conrad (1807-1892): eggs & skins from Argentina. 2) ex parte 6)

DÖRRIES, Friedrich Nicol Daniel (1822-1917): eggs of *Butastur indicus* (from Hamburg zoo). 1) 9)

DÖRRIES, Friedrich Carl Gustav (1852-1953): skins from East Siberia. 4) ex parte 5,7,8,9)

EHRENBURG, Christian Gottfried (1795-1876): listed in egg accession catalogue, no eggs found. ?1) ?9)

EICHHORN, Albert F. (died ~1929): eggs from Papua, New Britain, Nissan Isl. 1) 5)

FINSCH, Otto (1839-1917): skins from Siberia, New Guinea. 3) ex parte 7,9)

FISCHER, Gustav Adolf (1848-1886): skins from East Africa. 1) 7) 9)

FLOERICKE, Curt (1869-1934): egg clutch of *Gyps fulvus*. 1) 9)

FRANK, Gustav Adolph (1808-1880): skins worldwide (dealer in Amsterdam). 3-4) ex parte 9)

FÜHRER, Ludwig von (1866-1937): eggs of *Otis tarda*. 1) 9)

GÄTKE, Heinrich (1814-1897): skins from Heligoland. 3) ex parte 7,8,9)

GARLEPP, Gustav (1862-1907): skins from Bolivia. 1) 6,7)

GODEFFROY, Johann Cesar (1813-1885): skins from Pacific Islands (collected by others). 3)

GOEBEL, Hermann (1844-1910): eggs of *Gallinago stenura*. 1) 9)

GÖRING, Anton (1836-1905): skins from Venezuela. 3) 7,8,9)

GÜNTHER, Albrecht Carl Ludwig Gotthilf (1830-1914): eggs & skins from Britain/captivity. 3)

GUNDLACH, Johannes (1810-1896): skins from Cuba. 1) 8)

HAAST, Julius von (1822-1887): eggs of *Pachyptila*, Chatham Island. 1)

HARTERT, Ernst Johann Otto (1859-1933): spec. from East Prussia and Middle Germany. 4) ex parte 5)

HELLMAYR, Carl Eduard (1878-1944): skins from Germany and Austria. 1) 9).

HENKE, Karl Gottlieb (1830-1899): specimens from Astrachan & Kirgisian steppes. 2) 7,8,9)

HENRICI, Paul (1880-1971): eggs not located, but correspondence about such present.

HEUGLIN, Theodor von (1824-1876): eggs from NE-Africa. 1) 5)

HILDEBRANDT, Johann Maria (1847-1881): skins from East Africa. 2)

HINTZ, Wilhelm (died 1868): egg of *Tringa ochropus*. 1) 9)

HODEK, Eduard (1827-1911): eggs of raptors. 1) 5) 7)

HÜGEL, Baron Anatole von (1854-1928): skins from i.a. Britain, Australia, New Zealand. 2)

HÜSLER, [initials not known] (end 19th century): skins from New Hanover. 1)

HUNSTEIN, Carl (~1843-1888): skins from New Guinea, New Britain etc. 2) 6,9)

IHERING, Hermann von (1850-1930): skins from São Paulo. 1) ex parte 6,8)

JORDAN, Karl (18-1952): eggs from Hertfordshire (UK) and Brazil. 2)

KAUP, Johann Jacob (1803-1873): skins & eggs from Germany, eggs of Cassowary. 1) ex parte 9)

KEITEL, G. T. (died 1893): eggs of *Numenius arquata* (dealer at Berlin). 1) 9)

KITTLITZ, Baron Friedrich Heinrich von (1799-1874): 1 skin & ? 38 skeletons from Chile. 1) 9)

KLEINSCHMIDT, Theodor (1834-1881): skins from Pacific Islands. 2) 7,9)

KNOBLECH(N)ER (also Knoblehar), Ignaz (1819-1858): skins from Sudan. 1) 9)

KOCH, Oskar (1867-1930): eggs from Europe. 1) 9)

KOCH, Otto (active times 1880s, see also Schadenberg): eggs of *Sacrops calvus melanotis*. 1) 9)

KOENIG, Alexander Ferdinand (1858-1940): eggs from i.a. *Aegypius* & *Gypaetus*. 1) 5,9)

KRAUB, Ferdinand von (1812-1890): skins from South Africa. 1)

KRICHEDORFF, Albert (1852-1924): eggs from various localities (also coll. by others). 1) 5, 9)

KÜHN, Heinrich (1860-1906): eggs & skins from Moluccas and Kei Islands. 2) 5,9)

KRÜPER, Theobald Johannes (1829-1917): eggs & skins from Greece. 3) 5,6,7,8,9)

KUHL, Heinrich (1797-1821): skins from Europe. 1) 9)

KUHLMANN, Ludwig (1857-1928): probably eggs at BMNH, but only letter known.

KUSCHEL, Maximilian (1851-1909): eggs from different loc. (also coll. by others). 3) cx parte 9)

KAPPLER, August (1815-1887): skins from Surinam. 1) 6,9)

KUBARY, Johann Stanislaus (1846-1896): skins from Palau. 1) 7)

KUTTER, Friedrich (1834-1891): eggs & skins from Posen. 1) 5,7,9)

LANDBECK, Christian Ludwig (1807-1890): skins & eggs from Chile, drawings. 4) 6,9).

LEVERKÜHN, Paul (1867-1905): eggs from the Black Sea. 1) 9)

LEYBOLD, Friedrich (1827-1879): eggs & skins from Chile and Argentina. 4) 5,6,9)

LICHENSTEIN, Martin H. Carl (1780-1857): from Brazil (?coll. by F. SELLOW, J. C. HOFFMANNSEGG). 1) 9)

LINDNER, Carl (1866-1947): skins from Saale region, Germany. 2) 7,9)

LORENZ, Theodor (died ~1910, cf. LORENZ & KOHTS 1910-1911): skins from Moscow. 1) 7)

MAACK, Richard Karl (1826-1886, ?Russian): skins from Amur region. 1) 7)

MALTZAN, Freiherr Hermann von (1843-1891): skins from Caribic Islands. 1)

MARX, Arno (1887-1970): skins from Saxonia, Germany. 1) 9)

MAYHOFF, Hugo (1888-1917): skins from Germany. 1) 9)

MAYR, Ernst (1904): eggs from Indonesia & New Guinea. 1) 5,9)

MEVES, Friedrich Wilhelm (1814-1892): skins from South Sweden. 3)

MEYER, Adolf Bernhard (1840-1911): skins from New Guinea. 2) 9)

MEYER, Otto (1877-1937): eggs from Halmahera & New Britain. 1) 5)

MÖSCHLER, Albert (1864-1945): skins and eggs from the Wolga and Thuringia. 3) 7,8,9)

MÖSCHLER, Heinrich Ferdinand (1800-1885): eggs from C-SE-Europe. 1) 7,9)

MÜLLER, August (1853-1913): skins from Salanga Island (coll. by WEBER), Persia and Amur region. 2) 7,8,9)

MÜLLER, Johann Wilhelm von (1824-1866): skins from Abyssinia. 1) 9)

NATTERER, Johann (1787-1843): skins from Brazil. 2-3) 6,9)

NEHRKORN, Adolph (1841-1916): eggs world-wide (coll. mainly by others). 1) ex parte 5) 9)

Neumann, Oscar (1867-1946): egg of *Porphyrio porphyrio*. 1)

PASHA, Emin (1840-1892): skins & ?eggs from Equatorial Africa. 3) ex parte 6)

PHILIPPI, Rudolf Amandus (1808-1904): skins from Chile. 3) 9)

PLATEN, Carl Constantin (1843-1899): skins from Sarawak. 1) 7)

RADDE, Gustav (1831-1903): eggs & skins from Siberia - Irkutsk & Caucasus. 2) 6,7,9)

REICHENOW, Anton (1847-1941): skins and eggs from North Germany. 1) ex parte 9)

REISCHEK, Andreas (1845-1902): skins from New Zealand. 1) 9)

REISER, Othmar (1861-1936): skins from Bosnia. 1)

REY, Jean Guillaume Charles Eugène (1838-1909): eggs of the Leipzig region. 1) 5)

RÖDERN, Erdmann Graf von (? – 1890/91): eggs mainly from Germany, also Great Auk egg. 4) 5)

RÜPPELL, Eduard (1794-1884): skins from the expedition to Abyssinia. 2)

SACHSE, Otto Karl Adolf (1818-1902): eggs of *Pernis apivorus* & *Regulus ignicapillus*. 1) 7)

SCHADENBERG, Alexander von (1851-1896): eggs of *Sacrops c. melanotis* (coll. with O. Koch) 1) 9)

SCHAUFUSS, Ludwig Wilhelm (1833-1890): skins from Abyssinia (dealer, Dresden). 1)

SCHAUINSLAND, Hugo Hermann (1857-1937): eggs of *Dionuedea* & *Sula*. 1) 5,9)

SCHLAGINTWEIT, Adolph (1829-1857): wet anatomical spec. from Himalayas & India. 1)

SCHLAGINTWEIT, Hermann (1826-1882): wet anatomic. spec. from Himalayas & India. 1)

SCHLAGINTWEIT, Robert (1833-1885): wet anatomical spec. from Himalayas & India. 1)

SCHLÜTER, Wilhelm (1828-1919): spec. from Germany and elsewhere (some coll. by others). 4) ex parte 5,7,8,9)

SCHMIDT, Richard (1865-1936): eggs of *Falco eleonora*. 1) 9)

SCHNEIDER, Gustav (1834-1900): skins from New Guinea and Texas (collected by others). 1) ex parte 8)

SCHÖNWETTER, Max (1874-1961): egg clutch of *Saxicola torquata*. 1) 9)

SCHOMBURGK, Moritz Richard (1811-1891): 2 nests Brit.Guinea. 1)

SCHOMBURGK, Robert Hermann (1804-1865): skins Brit.Guinea, Barbados, Bermuda. 3) ex parte 6,7,9)

SCHRADER, Leopold (1812-1878): skins from Asia Minor and Greece. 1) 7)

SCHRENCK, Leopold von (1826-1894): skins from Sachalin. 2) 7,8,9)

SEIDENSACHER, Eduard (1823-1867): eggs of European birds of prey. 1) 5,7,9)

SEMPER, ? Carl Gottfried (1832-1893): skins from Santa Lucia. 1) 6)

SINTENSIS, Brothers Max & Paul (active times: 1868-1879): skins from Dobrudscha. 1) 9)

SPATZ, Paul (1865-1942): skins and eggs from Tunis. 1) ex parte 9)

SPENGEL, ? Johann Wilhelm F. (1852-1921): skins from New Granada. 1) 8)

STAUDINGER, ?Otto Carl Heinrich Richard (1830-1900): skins from Samarkand. 2) 7,8)

STEINBACH, Josef (died 1930): eggs of *Aratinga aurea* (dealer in Bolivia). 1) 5)

STEINDACHNER, Franz (1834-1919): skins from Austria. 1) 8)

STRESEMANN, Erwin (1889-1972): skins from Germany,

23 eggs from Moluccas & E. Indies. 1) ex parte 5)
 TANCRÉ, Rudolf (1842-1934): skins & eggs from Poland & mainly Asia (coll. by others). 2) 5,9)
 THANNER, Rudolf von (1872-1922): eggs from Fuerteventura. 1) 9)
 THEOBALD, Philipp Wilhelm (1819-1893): eggs from Greenland, egg *Aegypius* via A. G. V. THEOBALD. 1) 6,9)
 THIENEMANN, Friedrich August Ludwig (1793-1858): 17 eggs and 5 nests, bought in 1845. 1)
 TSCHUSI ZU SCHMIDHOFFEN, Viktor Ritter v. (1847-1924): Germany, Austria & Switzerland. 1) 9).
 UMLAUFF, J. F. G. (active times ~1868-1910): skins Germany, photos Africa (dealer, Hamburg). 1) ex parte 5)
 VIERTHALER, Richard (1820-1852): skins from the White Nile. 1) 7)
 WALDBURG-ZEIL, Karl Graf v. (1841-1890): skins from Geogr. Soc. Exp. to W-Siberia. 1) 9)
 WEBER, Johannes (active times 1880s): skins and eggs from Salanga (cf. MÜLLER 1882, 1885). 2) 9)
 WEIGOLD, Max Hugo (1886-1973): skins from Saxonia, Germany. 1) 7,9)
 WEISKE, Emil (1867-1950): skins from New Guinea. 1) 7,9)
 WIEBKE, Anton Wilhelm (active times ~1860-1900): specimens from Germany & Siberia. 2) 5)
 WIEBKE, Paul M. (died 1898): specimens from Germany & Siberia. 2) 5)
 WIED-NEUWIED, Prinz Max. A. P. (1782-1867): few eggs (*Buteo rufina*, *Aquila clanga*). 1) 5)
 WOLF, Joseph (1820-1899): skins from Germany (e.g. *Milvus migrans*). 1) 9)

1) <50 specimens known, 2) <100 specimens known, 3) >100 specimens known, 4) several hundred specimens known, 5) via Rothschild collection, 6) via Salvin & Godman collection, 7) via Seeböhm collection, 8) via Hargitt collection, 9) via other collections, 10) first German record and one of the few certain museum's specimens of this species from Germany, with Brehm's handwriting on stand (cf. OLPHE-GALLIARD 1892: 159; BLOTZHEIM et al. 1977: 296).

For the following names I could not trace any information on living dates/nationality: BERNSTADT (eggs), BISCHOFF F. (Kodiak), GERNET von (eggs), HAFSTEIN (eggs), HEERMANN A. L. Dr. (Amazon), HUGEL (Hiddensee), KOLB (Madras), KOTZE (eggs), KRIENKE Walter (Rhodesia), KURZ A. (Andalusia), MEYDELL Baron von (Estonia), RUDOLPH Dr. (eggs), SCHMIDT Th. (Crim), STADER Dr (Asia), THESSIGER W. (Persia), WALDECK C. H. (Nigeria), WEBER J. (Salanga, cf. HORN et al. 1990), WEDEKIND M. G. (Zambia), WEISSHAUPT Dr (Chile), WELTZ G. Dr. (eggs), WIELDT J. B. (Europe) and WUCHERER (Professor at Bahia, many specimens in several European museums).

Only recently, German/Austrian collectors made some additions to the BMNH collection. The author of this paper, Frank D. STEINHEIMER, participated in a museum's collecting trip to SW-Cambodia (cf. EAMES et al. 2002; STEINHEIMER 2002c; STEINHEIMER et al. 2000). The Cambodian specimens as well as a few Middle European are housed now at the BMNH. Gerhard NIKOLAUS enlarged the BMNH skeleton holdings by presenting several skeletons from Peru. Via an exchange with Vienna Museum in 2001, Austrian specimens of the following collectors are represented at the BMNH: Hans-Martin BERG, Anita GAMAU, Ch. GöRTL, Alfred GRÜLL, R. KINNL, H. KÜHNEL, G. KUNST, G. LOICHHMANN, G. PFIFFINGER, G. RATHBAUER, N. SCHULLER, J. SINDELAR, Karl STEINER, W. SUMMES-BERGER, Stephan WEIGL, H. WINDEL and K. ZÖHRER.

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Bonn zoological Bulletin - früher Bonner Zoologische Beiträge.](#)

Jahr/Year: 2003

Band/Volume: [51](#)

Autor(en)/Author(s): Steinheimer Frank D.

Artikel/Article: [Darwin, Rüppell, Landbeck & Co. - Important Historical Collections at The Natural History Museum, Tring 175-188](#)